ABSTRACT

An apparatus for measuring alternating current in a conductor comprises first and second coils $a1_x$, $d1_x$ having substantially the same turns-area product and substantially parallel axes and located on the circumference of a circle with the first coil having its axis tangential to the circle and the second coil having its axis radially of the circle, and third and fourth coils $a1_y$, $d1_y$ also having substantially the same turns-area product and substantially parallel axes, the third and fourth coil means being located on the circumference of the same circle close to the first and second coil means respectively but having their axes orthogonal thereto. The coils are mounted on a support means configured to allow a conductor to be introduced into the centre of the said circle with the axis of the conductor normal to the plane containing the coils. The first and second coils are connected in series in anti-phase and the third and fourth coil means are connected in series in anti-phase, and the alternating current in the conductor is derived as a function of the voltages induced in the series-connected first and second coils and the series-connected third and fourth coils. Further coils are provided for interference suppression and signal enhancement.